

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

UTILITY
PATENT APPLICATION
TRANSMITTAL(Only for new nonprovisional applications under
37 C.F.R. 1.53(b))

Attorney Docket No.

2846.1001-028

First Named Inventor or
Application Identifier

David A. Edwards

Express Mail Label No.

EV 044391075 US

EVO44391075U

Title of
Invention

AERODYNAMICALLY LIGHT PARTICLES FOR PULMONARY DRUG DELIVERY

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:

Assistant Commissioner for Patents
Box Patent Application, P.O. Box 2327
Arlington, VA 22202

1. ☐ Fee Transmittal Form
(Submit an original, and a duplicate for fee processing)
2. ☒ Specification **Total Pages 38**
(preferred arrangement set forth below)
- Descriptive title of the invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
3. ☒ Drawing(s) (35 U.S.C. 113) **Total Sheets 4**
☐ Fig. of the Drawings for Publication ☐
☒ No Figure to be Published
4. ☒ Oath or Declaration **Total Pages 4**
- a. ☐ Newly executed (original or copy)
 - b. ☒ Copy from a prior application (37 C.F.R. 1.63(d))
(for continuation/divisional with Box 17 completed)
 - i. ☐ DELETION OF INVENTOR(S)
Signed statement attached deleting
inventor(s) named in the prior
application, see 37 C.F.R. 1.63(d)(2)
and 1.33(b).
5. ☐ CD-ROM or CD-R in duplicate, large table or Computer
Program (Appendix)

6. ☐ Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)
- a. ☐ Computer Readable Form
 - b. ☐ Paper Copy (identical to computer copy)
☐ Pages
 - c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

7. ☐ Assignment Papers (cover sheet & documents)
☒ Assignee - The Penn State Research Foundation
University Park, PA
Massachusetts Institute of Technology
Cambridge, MA
8. ☒ Revocation
Power of Attorney ☒ 37 C.F.R. 3.73(b) Statement
9. ☐ English Translation Document (if applicable)
10. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
11. ☐ Preliminary Amendment
12. ☒ Return Receipt Postcard
13. ☐ Small Entity Statement(s)
- 14a. ☐ Foreign Priority Claim under 35 U.S.C. § 119 or 365
- 14b. ☐ Certified Copy of Priority Document(s)
15. ☐ Nonpublication Request (check parent application)
16. ☒ Other Remarks/Change of Correspondence Address

17. If a **CONTINUING APPLICATION**, check appropriate box; supply the requisite information.

☒ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: 09/194,068

Prior application information: Examiner: R. Bawa

Group Art Unit: 1619

The entire disclosure of the prior application is considered a part of the disclosure of the accompanying application and is hereby incorporated by reference.

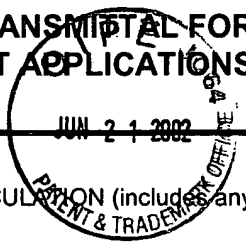
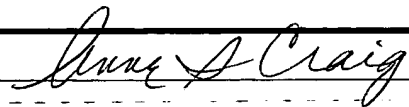
(Add standard Related Applications section with incorporation by reference to specification or update same)

18. CORRESPONDENCE ADDRESS

NAME	Customer No. 021005				
	HAMILTON, BROOK, SMITH & REYNOLDS, P.C.				
ADDRESS	530 Virginia Road, P.O. Box 9133				
CITY	Concord	STATE	MA	ZIP CODE	01742-9133
COUNTRY	USA	TELEPHONE	(978) 341-0036	FAX	(978) 341-0136

Signature	<u>Anne I. Craig</u>	Date	3/1/02
Submitted by Typed or Printed Name	Anne I. Craig	Reg. Number	32,976

HAMILTON BROOK, SMITH & REYNOLDS, P.C.

FEE TRANSMITTAL FOR PATENT APPLICATIONS 		Attorney Docket Number	2846.1001-028		
		Application Number	10/090,418		
		First Named Inventor	David A. Edwards		
CLAIM CALCULATION (includes any preliminary amendment)					
CLAIMS	(1) FOR	(2) NUMBER FILED	(3) NUMBER EXTRA	(4) RATE	(5) CALCULATIONS
	TOTAL CLAIMS (37 CFR 1.16(c) or (j))	18 - 20* =	0	x \$ 18 =	\$ 0
	INDEPENDENT CLAIMS (37 CFR 1.16(b) or (i))	4 - 3** =	1	x \$ 84 =	\$ 84
	MULTIPLE DEPENDENT CLAIMS (if applicable) (37 CFR 1.16(d))			+ \$ 280 =	\$
				BASIC FEE (37 CFR 1.16(a) or (h))	\$ 740
				Total of above Calculations =	\$ 824
	Reduction by 50% for filing by small entity (37 CFR 1.9, 1.27, 1.28) =			\$	
	TOTAL =			\$ 824	
	Surcharge - Late Filing of Declaration or Filing Fees (37 C.F.R. 1.16(e)) =			\$ 130	
	Petition for Extension of Time Fee (37 C.F.R. 1.17) =			\$	
	Assignment Recordation Fee = (only when filed with application)			\$	
	* Reissue claims in excess of 20 and over original patent ** Reissue independent claims over original patent			TOTAL =	\$ 954
<p>1. Small entity status:</p> <p>a. <input type="checkbox"/> A small entity statement is enclosed.</p> <p>b. <input type="checkbox"/> A small entity statement was filed in the prior non-provisional application and such status is still proper and desired.</p> <p>c. <input type="checkbox"/> Is no longer claimed.</p> <p>2. <input checked="" type="checkbox"/> A general authorization is hereby granted to charge deposit account number 08-0380 for any fees required under 37 CFR 1.16 and 1.17 in order to maintain pendency of this application. A copy of this authorization is enclosed for accounting purposes.</p> <p>3. <input checked="" type="checkbox"/> A check is enclosed for \$954.00. <input type="checkbox"/> Please charge \$[] to Deposit Account No. 08-0380.</p> <p>4. <input type="checkbox"/> Other: _____</p>					
Signature				Date	6/17/02
Submitted by Typed or Printed Name		Anne I. Craig		Reg. Number	32,976

#2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: David A. Edwards, Giovanni Caponetti, Jeffrey S. Hrkach, Noah Lotan,
Justin Hanes, Abdellaziz Ben-Jebria and Robert S. Langer

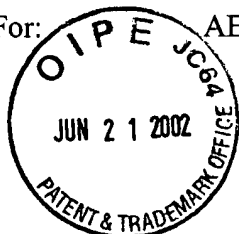
Application No.: 10/090,418

Group: 1619

Filed: March 1, 2002

Examiner: Unknown

For: AERODYNAMICALLY LIGHT PARTICLES FOR PULMONARY DRUG DELIVERY



CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Assistant Commissioner for Patents, P.O. Box 2327, Arlington, VA 22202	
on <u>June 17, 2002</u>	<u>Linda M. Amato</u>
Date	Signature
Linda M. Amato	
Typed or printed name of person signing certificate	

REPLY TO NOTICE TO FILE MISSING PARTS OF APPLICATION

Box Missing Parts
Assistant Commissioner for Patents
P.O. Box 2327
Arlington, VA 22202

Sir:

In reply to the Notice to File Missing Parts dated April 15, 2002, the following documents and fees are being submitted for filing in the captioned application. A copy of the Notice is attached.

☐ **EXECUTED DECLARATION FOR PATENT APPLICATION**

(Separate transmittal letter and postcard not required)

☐ **POWER OF ATTORNEY DOCUMENT**

☐ **GRANTED BY INVENTOR(S)**

☐ **GRANTED BY ASSIGNEE, including Statement under 37 C.F.R. 3.73(b)**

(Separate transmittal letter and postcard not required)

☐ **PRELIMINARY AMENDMENT**

(Separate transmittal letter and postcard not required)

☒ **FILING FEE - with Fee Transmittal for Patent Applications in duplicate**

Fee calculations based on:

☒ Claims as originally filed

☐ Claims upon entry of the Preliminary Amendment filed [herewith] [with the application]

(Separate transmittal letter and postcard not required)

☒ **SURCHARGE - surcharge fee of \$130.00**

(Separate transmittal letter and postcard not required)

☐ **SEQUENCE LISTING** - Filed concurrently and is attached

(Separate transmittal letter and postcard required)

☐ **SUBSTITUTE DRAWINGS**

☐ Sheets of substitute drawings consisting of Figs. 1 - ☐ are enclosed

(Separate transmittal letter and postcard not required)

☐ **PETITION FOR EXTENSION OF TIME**

☐ Applicant hereby petitions to extend the time to respond to the Notice to File Missing Parts dated ☐ for ☐ month(s) from ☐ to ☐ The appropriate fee of \$☐ is included in the enclosed check

☐ A ☐ month extension of time to respond to the Notice to File Missing Parts dated ☐ was filed on ☐ with payment of a \$☐ fee

☐ Applicant hereby petitions for an additional ☐ month extension of time to respond to the Notice to File Missing Parts. The appropriate fee of \$☐ is included in the enclosed check

(Separate Petition for Extension of Time and postcard not required)

☒ **REQUEST FOR CORRECTED FILING RECEIPT** - Filed concurrently and is attached

(Separate transmittal letter and postcard required)

☐ **STATEMENT CLAIMING SMALL ENTITY STATUS**

☐ Was filed on ☐

☐ Is enclosed herewith

(Separate transmittal letter and postcard not required)

☐ In view of the small entity status of the captioned application, we hereby request a reimbursement of 50% of the filing fees in the amount of \$☐ which were paid on ☐ to be deposited in Deposit Account No. 08-0380

The fees required for filing the indicated documents are enclosed in the form of a check in the total amount of \$954.00. Please charge any deficiency or credit any overpayment in the fees that may be due in this matter to Deposit Account No. 08-0380. A copy of this letter is enclosed for accounting purposes.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By Anne I. Craig
Anne I. Craig

Registration No.: 32,976

Tel.: (978) 341-0036

Fax: (978) 341-0136

Concord, Massachusetts 01742-9133

Date: 6/17/02

Receipt \$
#2



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

David A. Edwards, Giovanni Caponetti, Jeffrey S. Hrkach,
Noah Lotan, Justin Hanes, Abdellaziz Ben-Jebria and Robert S. Langer

Application No.: 10/090,418

Group: 1619

Filed: March 1, 2002

Examiner: Not Assigned

For: AERODYNAMICALLY LIGHT PARTICLES FOR PULMONARY
DELIVERY

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Assistant Commissioner for Patents, P.O. Box 2327, Arlington, VA 22202	
on <u>6-17-02</u>	<u>Linda M. Amato</u>
Date	Signature
Linda M. Amato	
Typed or printed name of person signing certificate	

REQUEST FOR CORRECTED FILING RECEIPT
FOR UTILITY APPLICATION

Office of Initial Patent Examination
Customer Service Center
Assistant Commissioner for Patents
P.O. Box 2327
Arlington, VA 22202

Sir:

We hereby request that the following items of information be corrected in the Filing Receipt for the subject application received in this office on April 18, 2002.

The errors and corrections appear below.

1. Please correct the Applicants data to read as follows:

David A. Edwards, Boston, MA
Giovanni Caponetti, Piacenza, Italy
Jeffrey S. Hrkach, Somerville, MA.
Noah Lotan, Haifa, IL
Justin Hanes, Baltimore, MD,
Abdellaziz Ben-Jebria, State College, PA
Robert S. Langer, Newton, MA.

2. The second assignee has been omitted. Please correct the Assignment data as follows:

Assignment for Published Patent Application

The Penn State Research Foundation, University Park, PA;
Massachusetts Institute of Technology, Cambridge, MA

3. Please correct the domestic priority data as follows:

Domestic Priority Data as Claimed by Applicant

**THIS APPLICATION IS A CON OF 09/194,068 04/08/1999
WHICH IS A 371 OF PCT/US97/08895 05/23/1997
WHICH CLAIMS PRIORITY TO 08/655,570 05/24/96 (NOW
ABANDONED) AND 08/739,308 10/29/96 (NOW 5,874,064)**

Enclosed are copies of the Filing Receipt with changes noted in red and a copy of the Utility Patent Application Transmittal showing the correct listing of assignees and a copy of page 1 of the above-referenced application showing the correct domestic priority data.

Pursuant to instructions in the February 29, 2000 O.G., we hereby request that the errors which are identified above be corrected in the captioned application to which this request for correction is directed. It is understood that the Patent Office will issue an automatically-generated, corrected Filing Receipt in this and, if applicable, any other affected applications.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By Anne I. Craig

Anne I. Craig

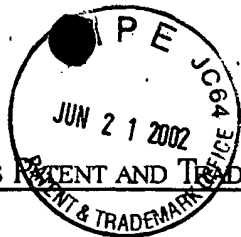
Registration No.: 32,976

Telephone: (978) 341-0036

Facsimile: (978) 341-0136

Concord, MA 01742-9133

Date: 6/17/02



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
10/090,418	03/01/2002	1619	0.00	2846.1001-028	4	18	4

CONFIRMATION NO. 8180

021005

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
530 VIRGINIA ROAD
P.O. BOX 9133
CONCORD, MA 01742-9133

FILING RECEIPT



OC000000007867865

Date Mailed: 04/15/2002

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

David A. Edwards, Boston, MA;

~~Giovanni Caponetti, Piacenza, ITALY;~~

Jeffrey S. Hrkach, Somerville, MA;

Noah Lotan, Haifa, IL;

Justin Hanes, Baltimore, MD;

~~Abdell Aziz Ben-Jebria, State College, PA;~~

Robert S. Langer, Newton, MA;

Giovanni Caponetti, Piacenza, Italy

Abdell Aziz Ben-Jebria, State College, PA.

Assignment For Published Patent Application

The Penn State Research Foundation, University Park, PA;

Massachusetts Institute of Technology, Cambridge,

Domestic Priority data as claimed by applicant

THIS APPLICATION IS A CON OF 09/194,068 04/08/1999

WHICH IS A 371 OF PCT/US97/08895 05/23/1997

Which claims Priority to 08/455,570 05/24/96 (Now abandoned) and

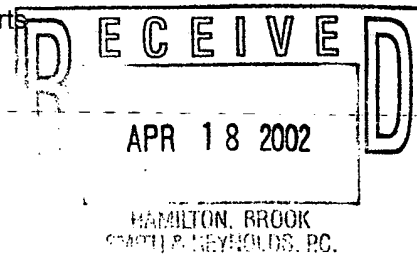
Foreign Applications 08/739,308 10/29/96 (Now 5,874,064)

If Required, Foreign Filing License Granted 04/13/2002

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No





COPY

PATENT APPLICATION
Docket No.: 2846.1001-028

-1-

Date: <u>3/1/02</u>	Express Mail Label No. <u>EV 044391075 US</u>
---------------------	---

Inventors: David A. Edwards, Giovanni Caponetti, Jeffrey S. Hrkach, Noah Lotan,
Justin Hanes, Abdellaziz Ben-Jebria and Robert S. Langer

Attorney's Docket No.: 2846.1001-028

AERODYNAMICALLY LIGHT PARTICLES FOR
PULMONARY DRUG DELIVERY

RELATED APPLICATIONS

This application is a continuation of Application No. 09/194,068, which is the
5 U.S. National stage of International Application No. PCT/US97/08895, filed on May
23, 1997, with the completion of the §371(c) requirements on April 8, 1999, published
in English, which claims priority to U.S. Application No. 08/655,570, filed May 24,
1996, now abandoned, and U.S. Application No. 08/739,308, filed October 29, 1996,
now U.S. Patent No. 5,874,064. The entire teachings of the Application No. 09/194,068
10 are incorporated herein by reference.



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
10/090,418	03/01/2002	David A. Edwards	2846.1001-028

021005
HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
530 VIRGINIA ROAD
P.O. BOX 9133
CONCORD, MA 01742-9133



CONFIRMATION NO. 8180

FORMALITIES LETTER



OC000000007867796

Date Mailed: 04/15/2002

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
Applicant must submit \$ 740 to complete the basic filing fee for a non-small entity. If appropriate, applicant may make a written assertion of entitlement to small entity status and pay the small entity filing fee (37 CFR 1.27).
- Total additional claim fee(s) for this application is \$84.
 ▪ \$84 for 1 independent claims over 3 .
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(l) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.
- **The balance due by applicant is \$ 954.**

06/26/2002 MBIZUNES 00000009 10090418

01 FC:101	740.00 OP
02 FC:105	130.00 OP
03 FC:102	84.00 OP

*A copy of this notice **MUST** be returned with the reply.*

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE